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27572   7590   03/19/2010

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER
KIM, WESLEY LEO

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 03/19/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,219	07/14/2005	Kazuyoshi Saito	6268-005/NP	1745

TITLE OF INVENTION: RADIO PACKET COMMUNICATION METHOD AND RADIO PACKET COMMUNICATION APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	06/21/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: <u>Mail</u>   **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or <u>Fax</u>   **(571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

27572	7590	03/19/2010

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Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)

_____ (Signature)

_____ (Date)

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nonprovisional	NO	$1510	$300	$0	$1810	06/21/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
KIM, WESLEY LEO	2617	370-338000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❏ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❏ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE   (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent):   ❏ Individual ❏ Corporation or other private group entity ❏ Government

4a. The following fee(s) are submitted:

❏ Issue Fee

❏ Publication Fee (No small entity discount permitted)

❏ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

❏ A check is enclosed.

❏ Payment by credit card. Form PTO-2038 is attached.

❏ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

❏ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

❏ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____   Date _____

Typed or printed name _____   Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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DATE MAILED: 03/19/2010

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 591 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 591 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)
Notice of Allowability	10/542,219	SAITO ET AL.
	Examiner	**Art Unit**
	WESLEY L. KIM	2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *1/8/10*.

2. ☒ The allowed claim(s) is/are *1-3,5-12,14-24,26 and 28*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

DETAILED ACTION

Allowable Subject Matter

1. Claim1-3, 5-12, 14-24, 26, 28 are allowed.

2. The following is an examiner's statement of reasons for allowance:

Applicants Claims are directed towards a plurality of types of available transmission rates to be used for transmission of data packets which are individually managed for each receiver terminal. When there are a plurality of data packets to be transmitted onto a transmission buffer and when it is possible to transmit said plurality of data packets simultaneously, the packet sizes representative of the data amounts of the respective data packets are referred to as well as the transmission rates of the respective data packets associated with the receiver terminals. The packet time lengths (transmission times) defined by the packet sizes and transmission rates are checked for the respective data packets. A plurality of data packets whose packet time lengths are approximately equal to each other are selected regardless of their receiver terminals. The transmissions of the plurality of selected data packets are commenced simultaneously by use of a plurality of radio channels.

-   **Independent Claim 1** recites, *inter alia*, when there are a plurality of data packets to be transmitted onto a transmission buffer and when it is possible to transmit said plurality of data packets simultaneously, referring to packet sizes representative of data amounts of the respective data packets and to transmission rates of the respective data packets associated with receiver terminals, checking packet time lengths of the

respective data packets, and selecting said plurality of data packets whose packet time lengths are approximately equal to each other regardless of their receiver terminals, the packet times lengths being transmission times defined by the packet sizes and transmission rates; and simultaneously commencing the transmissions of said plurality of selected data packets by use of a plurality of radio channels, when a first mode and a second mode can be selected, comparing transmission efficiency under said first mode to transmission efficiency under said second mode, and selecting, according to a result of the comparison, a plurality of data packets whose packet time lengths are approximately equal to each other, wherein in the first mode the plurality of data packets whose packet time lengths are equal to each other are generated by dividing a unit of data at a transmission buffer, wherein in the second mode the plurality of data packets whose packet time lengths are substantially equal to each other are generated by adding a dummy signal to at least one of the plurality of data packets whose packet time lengths are different from each other. These steps, in combination with the remaining steps, are neither taught nor suggested by the prior art. Accordingly, Applicants Claims are allowed for these reasons.

- **Independent Claim 10** recites, *inter alia*, when there are a plurality of data packets to be transmitted onto a transmission buffer and when it is possible to transmit said plurality of data packets simultaneously, a unit that refers to packet sizes representative of data amounts of the

respective data packets and to transmission rates of the respective data

packets associated with receiver terminals, that checks packet time

lengths of the respective data packets, and that selects said plurality of

data packets whose packet time lengths are approximately equal to each

other regardless of their receiver terminals, the packet time lengths being

transmission times defined by said packet sizes and transmission rates;

and a unit that commences the transmissions of said plurality of selected

data packets simultaneously by use of a plurality of radio channels, a unit

that sets a first mode and a second mode, the first mode in which a

plurality of data packets whose packet time lengths are equal to each

other are generated by dividing a unit of data on a transmission buffer, the

second mode in which a plurality of data packets whose packet time

lengths are substantially equal to each other are generated by adding a

dummy signal to at least one of said plurality of data packets whose

packet time lengths are different from each other; and a unit that

compares transmission efficiency under said first mode to transmission

efficiency under said second mode and selects, according to a result of

the comparison, one of the modes to generate said plurality of data

packets whose packet time lengths are approximately equal to each other.

These steps, in combination with the remaining steps, are neither taught

nor suggested by the prior art. Accordingly, Applicants Claims are allowed

for these reasons.

- **Independent Claim 11** recites, *inter alia*, when there are a plurality of
  data packets to be transmitted onto a transmission buffer and when it is
  possible to transmit said plurality of data packets simultaneously, a unit
  that refers to packet sizes representative of data amounts of the
  respective data packets and to transmission rates of the respective data
  packets associated with receiver terminals, that checks packet time
  lengths of the respective data packets, and that selects said plurality of
  data packets whose packet time lengths are approximately equal to each
  other regardless of their receiver terminals, the packet time lengths being
  transmission times defined by said packet sizes and transmission rates; a
  unit that determines, from the packet time lengths of said data packets
  and of acknowledgment packets to be calculated from the transmission
  rates of the data packets associated with destinations, time when the
  receiver terminals of the data packets transmit acknowledgment packets
  and stores, in the respective data packets, information on
  acknowledgment packet transmission time and information on
  transmission deferral duration, NAV, which is a period of time taken for
  completion of the transmissions of acknowledgment packets to all of data
  packets transmitted simultaneously, the acknowledgment packet
  transmission time being time when the receiver terminals of the respective
  data packets are allowed to transmit acknowledgment packets; and a unit
  that simultaneously commences the transmissions of said plurality of
  selected data packets by the MIMO, a unit that sets a first mode and a

second mode, the first mode in which a plurality of data packets whose packet time lengths are equal to each other are generated by dividing a unit of data on a transmission buffer, the second mode in which a plurality of data packets whose packet time lengths are substantially equal to each other are generated by adding a dummy signal to at least one of said plurality of data packets whose packet time lengths are different from each other; and a unit that compares transmission efficiency under said first mode to transmission efficiency under said second mode and selects, according to a result of the comparison, one of the modes to generate said plurality of data packets whose packet time lengths are approximately equal to each other. These steps, in combination with the remaining steps, are neither taught nor suggested by the prior art. Accordingly, Applicants Claims are allowed for these reasons.

- **Independent Claim 19** recites, *inter alia*, determining a packet size of each of the plurality of data packets and determining a transmission rate of each of the plurality of data packets to be transmitted to an associated terminal of the receiver terminals, wherein the packet size indicates data amount of the data packet, determining a packet time length of each of the plurality of data packets, wherein the packet time length is transmission time defined by the packet size and the transmission rate of the data packet, and selecting, from said plurality of data packets, data packets whose packet time lengths are approximately equal to each other regardless of the associated receiver terminals of the selected data

packets; determining when the receiver terminals of the data packets transmit acknowledgment packets from the packet time lengths of said data packets and the packet time lengths of acknowledgment packets, wherein the packet time lengths of the acknowledgment packets are calculated from the transmission rates of the data packets associated with destinations, and storing, in each of the selected data packets, information of acknowledgment packet transmission time and information of a transmission deferral duration, NAV, wherein the NAV is a period of time taken for completion of transmissions of acknowledgment packets to all of data packets simultaneously transmitted, wherein the acknowledgment packet transmission time indicates when the receiver terminals of the selected data packets are allowed to transmit the acknowledgment packets; and each acknowledgment packet transmission time simultaneously commencing the transmissions of said selected data packets by the MIMO, detecting a number, Nch, of idle radio channels and a number, Np, of said data packets whose packet time lengths are approximately equal to each other, and simultaneously transmitting Np data packets by use of Np idle channels without using the MIMO when Nch is more than Np, Nch > Np, and simultaneously transmitting a plurality of data packets using the MIM© when Nch is less than Np, Nch Np. These steps, in combination with the remaining steps, are neither taught nor suggested by the prior art. Accordingly, Applicants Claims are allowed for these reasons.

- **Independent Claim 22** recites, *inter alia,* when there are a plurality of
  data packets to be transmitted onto a transmission buffer and when it is
  possible to transmit said plurality of data packets simultaneously, a unit
  that refers to packet sizes representative of data amounts of the
  respective data packets and to transmission rates of the respective data
  packets associated with receiver terminals, that checks packet time
  lengths of the respective data packets, and that selects said plurality of
  data packets whose packet time lengths are approximately equal to each
  other regardless of their receiver terminals, the packet time lengths being
  transmission times defined by said packet sizes and transmission rates; a
  unit that determines, from the packet time lengths of said data packets
  and of acknowledgment packets to be calculated from the transmission
  rates of the data packets associated with destinations, time when the
  receiver terminals of the data packets transmit acknowledgment packets
  and stores, in the respective data packets, information on
  acknowledgment packet transmission time and information on a
  transmission deferral duration, NAV, which is a period of time taken for
  completion of the transmissions of acknowledgment packets to all of data
  packets transmitted simultaneously, the acknowledgment packet
  transmission time being time when the receiver terminals of the respective
  data packets are allowed to transmit acknowledgment packets; and a unit
  that simultaneously commences the transmissions of said plurality of
  selected data packets by the MIMO, characterized by further comprising a

unit that detects a number, Nch, of idle radio channels and a number, Np,

of data packets whose packet time lengths are approximately equal to

each other and transmits Np data packets simultaneously by use of Np

idle radio channels without using the MIMO when Nch is more than Np,

Nch > Np, and that transmits a plurality of data packets simultaneously by

use of the MIM© when Nch is less than Np, Nch Np. These steps, in

combination with the remaining steps, are neither taught nor suggested by

the prior art. Accordingly, Applicants Claims are allowed for these

reasons.

- **Independent Claim 26** recites, *inter alia*, determining a packet size of

  each of the plurality of data packets and determining a transmission rate

  of each of the plurality of data packets to be transmitted to an associated

  terminal of the receiver terminals, wherein the packet size indicates data

  amount of the data packet, determining a packet time length of each of the

  plurality of data packets, wherein the packet time length is transmission

  time defined by the packet size and the transmission rate of the data

  packet, and selecting, from said plurality of data packets, data packets

  whose packet time lengths are approximately equal to each other

  regardless of the associated receiver terminals of the selected data

  packets; determining when the receiver terminals of the data packets

  transmit acknowledgment packets from the packet time lengths of said

  data packets and the packet time lengths of acknowledgment packets,

  wherein the packet time lengths of the acknowledgment packets are

calculated from the transmission rates of the data packets associated with

destinations, and storing, in each of the selected data packets, information

of acknowledgment packet transmission time and information of a

transmission deferral duration, NAV, wherein the NAV is a period of time

taken for completion of transmissions of acknowledgment packets to all of

data packets simultaneously transmitted, wherein the acknowledgment

packet transmission time indicates when the receiver terminals of the

selected data packets are allowed to transmit the acknowledgment

packets; and each acknowledgment packet transmission time

simultaneously commencing the transmissions of said selected data

packets by the MIMO, characterized by further comprising switching over

to transmissions at lower transmission rates when said plurality of data

packets whose packet time lengths are approximately equal to each other

are selected in association with transmission rates lower than a current

transmission rate. These steps, in combination with the remaining steps,

are neither taught nor suggested by the prior art. Accordingly, Applicants

Claims are allowed for these reasons and the amendments from

6/10/2009.

- **Independent Claim 28** recites, *inter alia*, when there are a plurality of

  data packets to be transmitted onto a transmission buffer and when it is

  possible to transmit said plurality of data packets simultaneously, a unit

  that refers to packet sizes representative of data amounts of the

  respective data packets and to transmission rates of the respective data

packets associated with receiver terminals, that checks packet time

lengths of the respective data packets, and that selects said plurality of

data packets whose packet time lengths are approximately equal to each

other regardless of their receiver terminals, the packet time lengths being

transmission times defined by said packet sizes and transmission rates; a

unit that determines, from the packet time lengths of said data packets

and of acknowledgment packets to be calculated from the transmission

rates of the data packets associated with destinations, time when the

receiver terminals of the data packets transmit acknowledgment packets

and stores, in the respective data packets, information on

acknowledgment packet transmission time and information on a

transmission deferral duration, NAV, which is a period of time taken for

completion of the transmissions of acknowledgment packets to all of data

packets transmitted simultaneously, the acknowledgment packet

transmission time being time when the receiver terminals of the respective

data packets are allowed to transmit acknowledgment packets; and a unit

that simultaneously commences the transmissions of said plurality of

selected data packets by the MIMO, characterized by further comprising a

unit switching over to transmissions at lower transmission rates when a

plurality of data packets whose packet time lengths are approximately

equal to each other are selected in association with transmission rates

lower than current transmission rates. These steps, in combination with

the remaining steps, are neither taught nor suggested by the prior art.

Accordingly, Applicants Claims are allowed for these reasons and the
amendments from 6/10/2009.

- **Claims 2-3, 5-9, 12, 14-18, 20-21, 23-24** are allowed as being dependent
  upon the allowed Independent Claims.

- Any comments considered necessary by applicant must be submitted no
  later than the payment of the issue fee and, to avoid processing delays,
  should preferably accompany the issue fee. Such submissions should be
  clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from
   the examiner should be directed to WESLEY L. KIM whose telephone number
   is (571)272-7867. The examiner can normally be reached on Monday-Friday
   9:00am-5:30pm.

        If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, George Eng can be reached on 571-272-7495. The
fax phone number for the organization where this application or proceeding is
assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Wesley L Kim/
Examiner, Art Unit 2617